

Enhanced cyan fluorescent protein(ECFP) In Vitro Transcribed mRNA-LNP

Catalog Number:MRNA-TG-015

DESCRIPTION	
Product Name	Enhanced cyan fluorescent protein(ECFP) In Vitro Transcribed mRNA-LNP
Gene Name	Enhanced cyan fluorescent protein(ECFP)
Source	In vitro transcribed mRNA encapsulated with LNP
Alternative names	
SPECIFICATIONS	
Cap	Cap 1
5'-UTR	5' -untranslated region derived from human alpha-globin RNA with an optimized Kozak sequence
ORF	Enhanced cyan fluorescent protein(ECFP)
3'-UTR	3' UTR comprising two sequence elements derived from the aminoterminal enhancer of split (AES) mRNA and the mitochondrial encoded 12S ribosomal RNA
Poly(A) Tail	A 110-nucleotide poly(A)-tail consisting of a stretch of 30 adenosine residues, followed by a 10-nucleotide linker sequence and another 70 adenosine residues.
Modifications	N1-methyl-pseudouridine
Neutral Lipid	1,2-distearoyl-sn-glycero-3-phosphocholine (DSPC)
Cholesterol	Cholesterol
Lonizable Lipid	1,2-dimyristoyl-rac-glycero-3-methoxypolyethylene glycol-2000 (PEG2000-DMG)
PEG-lipid	Heptadecan-9-yl 8-((2-hydroxyethyl)(8-(nonyloxy)-8-oxooctyl)amino)octanoate)(SM-102)
Storage	-20 °C
Buffer	PBS, pH7.4
Cryoprotectant	Trehalose
BACKGROUND	
Gene Accession	
Gene Alias	

tryptophan-based one. This first-generation CFP was superseded by the popular Cerulean, CyPet, and SFCP3A that were engineered by rational and random mutagenesis, yet the latter CFPs still exhibit suboptimal properties of pH sensitivity and reversible photobleaching behavior.

Background

Enhanced cyan fluorescent protein (ECFP) and its variant Cerulean are genetically encoded fluorophores widely used as donors in FRET-based cell imaging experiments. ECFP, the first usable cyan fluorescent protein (CFP), was obtained by adapting the tyrosine-based chromophore environment in green fluorescent protein to that of a